Osteoarthritis

Arthritis is a generic term that describes many different diseases, the most common which is osteoarthritis.[1] Despite significant advances in the understanding of pain mechanism, many people with arthritis experience levels of acute and chronic pain that decrease their function and quality of life.[2]

Note For All Steps:

- Physicians are advised to follow-up with periodic laboratory monitoring and assessments for standards of practice.
- *Italics* indicate items that are currently covered under the Medi-Cal List of Contract Drugs; however, covered items are subject to change.

Step 1: Mild

Assessment:
Location, type, nocioceptive vs. neuropathic, quality & intensity, source, time course, duration, effects on mood, and effects on lifestyle.[2]

Periodic assessments and CBC, SCr

NSAID - High Risk Patient*[7]*:

1. Age ≥ 65 & on diuretic
2. Age ≥ 65 & on ACE
3. CHF
4. Cirrhosis
5. Preexisting Renal Disease
6. ASHD…[7]

If high dose NSAID is added…
A DUR ALERT SENT TO PHCY for patients ≥ 65 years and who are on diuretic therapy, or ACE; or has CHF; or ASHD:
Call MD and begin NSAID at modest dose. Patient to report s/s of fluid retention[5]

Non-Pharmacological Approach:

- *PT/OT*, *acupuncture*, biofeedback, weight management (BMI => 30 = obese[8]), Cognitive Behavioral Therapy, relaxation, TENS, and heat/cold therapy[2]
- Glucosamine & Condroitin
- Arthritis Self Management Course, People with Arthritis Can Exercise, Arthritis Foundation Aquatics[8]
- Adaptation of Self Management Course in other languages, significant improvement in self-efficacy and symptoms noted[9]
- **Assistive devices**: *Splints, shoe supports, functional esthetics, canes, walkers*

Pharmacological Agents

- ***Use of OTC** items such as APAP* or *Aspirin*
- Topical rubs and liniments such as Capsaicin cream
- **NSAIDs:** *Diclofenac sodium, Fenoprofen, Flurbiprofen, Ibuprofen, Indomethacin, Ketoprofen, Meloxicam, Nabumetone, Naproxen, Piroxicam, Sulindac, Tolmetin*.* Diflunisal, Oxaprozin, Ketorolac, Mefanamic Acid, Etodolac.
- **Non-Acetylated NSAIDs:** *Salsalate and Choline Salicylate & Magnesium Salicylate*
- Use of Intra-articular joint injections of steroids or joint viscosupplmentation
- **Use Cyclooxygenase (COX)-2 Inhibitor:**
  - If tried and failed 2 of the above agents with claims history of 30 days of continuous use in the past 120 days.

OR

  - Known risk factor (require one criteria to be met): Age ≥ 65 years, history of ulcer, inferred Dx - Rx PPI + non-selective NSAIDs, concurrent use of corticosteroid, concurrent use of anticoagulants, inferred Dx - misoprostol + non-selective NSAID.

None of the NSAIDs (including COX-2) are renal sparing: Use NSAIDs cautiously in recipients with significant risk of HTN or renal impairment.[3]

- Use of NSAIDs and COX–2 inhibitors should be avoided in conditions associated with diminished intravascular volume or edema, such as CHF, nephrotic syndrome, or cirrhosis and in patients with serum creatinine > 2.5mg/dl.[5]
- Chronic kidney failure defined as at least 3 months of either structural or functional abnormalities of the kidney or GFR <60ml/min/1.73meters squared[6]

Step 2: Moderate

Periodic assessment *and*
- Labs (CBC, SCr, X-Ray)

Estimation of Creatinine Clearance (Cockcroft) =
MALE =
$\frac{(170\text{-age})(\text{ideal wt (Kg)})}{72 \times \text{SCr}}$

Females above x 85%

Pharmacological Agents

- Consider combination therapy with an NSAID + short acting opiod in recipients not responding with NSAIDs.

OR / SWITCH

- **COX–2**[1]

AND / OR

- Consider combination therapy with an NSAID +*Tramadol or short-acting opioid and/or long-acting opioid,* when other medications and non-pharmacological interventions produce inadequate pain relief and the patient's quality of life is affected by pain.[1]

Assistive devices: *Splints, shoe supports, functional esthetics, canes, walkers, wheelchairs* (Rx)

Note:

- *Providers are to follow-up with periodic laboratory monitoring for standards of practice.*
- *Consideration: Estimation Creatinine Clearance (Cockcroft) or Glomerular Filtration Rate*
- The opioids have not been show to have the same efficacy for neuropathic pain verses that for nociceptive pain

Step 3: Severe

Periodic assessment *and*
- Labs (CBC, SCr, X-Ray)

Surgery

AND / OR

Assistive devices: *Splints, shoe supports, functional orthotics, canes, walkers and wheelchairs (Rx)*

Reference:

1. Guidance for the Evaluation and Management of Chronic Pain. Wisconsin Medical Society Pain Management Task Force. 2003.
2. Simon L, Lipman SL, et al. Guidelines for the management of pain in oteoarthritis, rheumatoid arthritis and juvenile chronic arthritis. 2nd Edition. American Pain Society. Glenview, Il; 2002.
3. Whelton A, Nephrotoxicity of nonsteroidal anti-inflammatory drugs: physiologic foundation and clinical implication. Am J. Med1999; 106 Suppl 5b:13-S-24S.
4. Recommendations for the Medical management of osteoarthritis of the hip and knee. ACR, Arthritis Rheum. 2000: 43(9); 1905-1915.
5. Guidelines for the Management of RA 2002 Update; Arthritis & Rheum Vol. 46, No.2 Feb. 2002 pg. 328-346.
6. National Kidney Foundation. K/DOQI Clinical Practice Guidelines for Chronic Kidney Disease: evaluation, classification, and stratification: Am J Kidney Dis. 2002; 39(Suppl 1):S17-S31
7. Guidelines for Monitoring Drug Therapy in Rheumatoid Arthritis; ACR Arthritis & Rheumatism 1996: 39(5); 723-731
8. Lorig K, Lubeck D, Kraines RG, etal. Outcomes of self-help education for patients with arthritis. Arthritis & Rheumatism 1985; 28(6): 680-685.